Please amend Paragraph 0037 as follows:

Figure 4 shows the basic design of an optical amplifier, which is typically composed of two amplifier stages 18 between which there is a fiber for dispersion compensation and the device for compensating the SRS. At the beginning, a constant part of the transmitted light power is extracted via a coupler 4, measured in a monitor 3, and the result is signaled to the controls 13/14. The controls 13/14 control, on the one hand, the slowly reacting influencing of the tilting via a controllable filter (gain tilt filter) 16 and, on the other hand, the filling laser 6. The power of the filling laser 6 is injected downstream of a dispersion-compensating fiber 17, counter to the direction of data transmission via a wavelength-selective coupler 7.

In the Drawings:

Please amend the drawings as noted in red in the Request for Approval of Drawing Changes which is being filed simultaneously herewith.

In the Claims:

Please amend Claim 1 as follows:

1. (Amended) A control method for compensating changes in an SRS-Induced Power Exchange when connecting channels into, and disconnecting channels from, a continuous optical data transmission path of a WDM system, the method comprising the steps of:

providing at least two systems which operate at different speeds to influence tilting of a spectrum of data signals in the optical data transmission path;

measuring a change in overall power in the optical data transmission path via at least one quicker system of the at least two systems; and

compensating the tilting by changing a power of at least one injected filling light source via the at least one quicker system.

Please amend Claim 2 as follows:

2. (Amended) A control method for compensating changes in an SRS-Induced Power Exchange as claimed in Claim 1, the method further comprising the step of:

incorporating a time delay in the signal in the optical data transmission path between measurement of the overall power and injection of the at least one filling light source.